<u>**IN THE CLAIMS**</u>:

A complete listing of the claims is set forth below. Please amend the claims as follows:

1-42.   **(Canceled)**

43.   **(Currently Amended)** A computer-implemented system for managing data associated with available-to-promise (ATP) products, comprising:

a memory storing a hierarchy of seller models, each seller model representing a seller of <u>a product</u> ~~one or more products within a hierarchy of sellers and within a seller organization, each product having a product forecast model representing~~, <u>the seller being within a hierarchy of sellers, wherein</u>:

> <u>the hierarchy of sellers comprises at least one parent seller and at least two sub-sellers associated with the parent seller,</u>

> <u>the parent seller is represented by a seller model of the hierarchy of seller models, and</u>

> <u>the parent seller forecasts sales of the product, and</u>

> <u>two or more of the at least two sub-sellers associated with the parent seller do not commit to sell an amount of the product included in the sales forecasted by the parent seller; and</u>

> ~~forecasted sales of the product through each seller;~~

> ~~planned supply of the product;~~

> ~~customer orders for the product through each seller; and~~

> ~~pre-allocated supply of the product to each seller, the pre-allocated supply is a~~ ~~supply of the product pre-allocated to each seller to promise to subsequent customer orders for the product through each seller; and~~

a processor coupled with the memory, <u>wherein the processor:</u>

computes [[the]] <u>an</u> amount of the product that is ATP at [[a]] <u>at least one</u> seller <u>represented by a seller model</u> according to<u>,</u> at least<u>,</u> [[the]] planned supply of the product, [[the]] <u>one or more</u> customer orders for the product through ~~each seller~~ <u>one or more</u> <u>sellers represented by at least one of the seller models, a</u> [[the]] pre-allocated supply of the product to ~~each seller~~ <u>the at least one seller represented by a seller model</u>, and <u>an</u> [[the]] amount of the product that is ATP at one or more other sellers within the hierarchy of sellers ~~within the seller organization,~~<u>:</u>

~~wherein the processor further~~ adjusts the pre-allocated supply of the product to <u>the</u> <u>at least one seller represented by a seller model</u> ~~each seller~~ according to customer orders across a time horizon and recomputes the amount of the product that is ATP at <u>the at least</u> <u>one seller represented by a seller model</u> ~~each seller~~ according to the adjusted pre-allocated supply[[.]]<u>; and</u>

<u>requires a sub-seller of the two or more of the at least two sub-sellers to be ATP at</u> <u>the parent seller prior to authorizing the portion of the product to be promised by the sub-</u> <u>seller.</u>

44.   **(Currently Amended)** The system of Claim 43, wherein the processor further adjusts the pre-allocated supply of the product to <u>the at least one seller represented by a seller model</u> ~~each seller~~ according to one or more business criteria selected from the group consisting of seller criteria, product criteria, forecast criteria, supply criteria, customer order criteria, and policy criteria

45.   **(Currently Amended)** The system of Claim 43, wherein the processor further:

communicates product forecast models to a remote system;

receives from the remote system a promise computed at the remote system for a customer order requesting a quantity of a product through <u>the at least one seller represented by a seller model</u> ~~each seller~~, the promise computed according to the pre-allocated supply of the product to <u>the at least one seller represented by a seller model</u> ~~each seller~~;

receives from the remote system adjusted product forecast models reflecting the promise; and

recomputes the amount of the product that is ATP at <u>the at least one seller represented by a seller model</u> ~~each seller~~.

46.   **(Previously Presented)** The system of Claim 45, wherein:

all product forecast models for one or more sellers are communicated to the remote system; and

wherein the processor further:

receives from the remote system the promise also computed according to the amount of the product that is ATP at the one or more other sellers in the hierarchy; and

adjusts the amount of the product that is ATP at the one or more other sellers in the hierarchy when the promise exceeds the pre-allocated supply of the product to each seller.

47.   **(Currently Amended)** The system of Claim 43, wherein the product forecast model further represents a quantity of the product each seller has committed to selling and the processor adjusts the pre-allocated supply of the product to <u>the at least one seller represented by a seller model</u> ~~each seller~~ according to the committed quantity.

48.   **(Currently Amended)** The system of Claim 43, wherein the processor further:

accepts a customer order requesting a quantity of a product through <u>the at least one seller represented by a seller model</u> ~~each seller~~, and computes a promise for the customer order according to the planned supply and one or more existing customer orders, the promise restricted according to the pre-allocated supply of the product to <u>the at least one seller represented by a seller model</u> ~~each seller~~.

49.   **(Currently Amended)** The system of Claim 43, wherein:

each product forecast model is extensible such that one or more policy rules is associated with the corresponding product;

each policy rule comprises a restriction on either the forecasted sales or the pre-allocated supply of the product to <u>the at least one seller represented by a seller model</u> ~~each seller~~; and

either the forecasted sales or the pre-allocated supply of the product to <u>the at least one seller represented by a seller model</u> ~~each seller~~ is computed according to the policy rules.

50.   **(Currently Amended)** The system of Claim 43, wherein the processor further adjusts either the forecasted sales or the pre-allocated supply of the product to <u>the at least one seller represented by a seller model</u> ~~each seller~~ according to an arrival rate of customer orders for the product through <u>the at least one seller represented by a seller model</u>~~each seller~~.

51.   **(Currently Amended)** A computer-implemented system for managing data associated with available-to-promise (ATP) products, comprising:

a memory storing a hierarchy of seller models representing a seller of <u>a plurality of</u> products ~~within a hierarchy of sellers and within a seller organization,~~ <u>each product of the plurality of products corresponding</u> ~~that each correspond~~ to an item having one or more restrictions on its sale, at least two products <u>of the plurality of products</u> corresponding to the same item but with at least one different restriction, ~~each product having a product forecast model representing~~ <u>the seller being within a hierarchy of sellers, wherein</u>:

the hierarchy of sellers comprises at least one parent seller and at least two sub-sellers associated with the parent seller,

the parent seller is represented by a seller model of the hierarchy of seller models, and

the parent seller forecasts sales of the product, and

two or more of the at least two sub-sellers associated with the parent seller do not commit to sell an amount of the product included in the sales forecasted by the parent seller; and

~~forecasted sales of the product through each seller;~~

~~planned supply of the product;~~

~~customer orders for the product through each seller; and~~

~~pre-allocated supply of the product to each seller, the pre-allocated supply is a supply of the product pre-allocated to each seller to promise to subsequent customer orders for the product through each seller; and~~

a processor coupled with the memory, <u>wherein the processor:</u>

computes [[the]] <u>an</u> amount of the product that is ATP at [[a]] <u>at least one</u> seller <u>represented by a seller model</u> according to<u>,</u> at least<u>,</u> <u>a</u> [[the]] planned supply of the product, [[the]] <u>one or more</u> customer orders for the product through ~~each seller~~ <u>one or more sellers represented by at least one of the seller models, a</u> [[the]] pre-allocated supply of the product to ~~each seller~~ <u>the at least one seller represented by a seller model,</u> and <u>an</u>

[[the]] amount of the product that is ATP at one or more other sellers within the hierarchy of sellers ~~within the seller organization,~~ <u>;</u>

~~wherein the processor further~~ adjusts the pre-allocated supply of the product to <u>the at least one seller represented by a seller model</u> ~~each seller~~ according to customer orders across a time horizon and recomputes the amount of the product that is ATP at <u>the at least one seller represented by a seller model</u> ~~each seller~~ according to the adjusted pre-allocated supply[[.]]<u>; and</u>

<u>requires a sub-seller of the two or more of the at least two sub-sellers to reserve at least a portion of the product calculated to be ATP at the parent seller prior to authorizing the portion of the product to be promised by the sub-seller.</u>

52.   **(Previously Presented)** The system of Claim 51, wherein the restrictions are selected from the group consisting of price restrictions, quantity restrictions, and lead time restrictions.

53. **(Currently Amended)** The system of Claim 51, wherein the processor further adjusts the pre-allocated supply of the product to ~~the~~ at least one seller represented by a seller model ~~each seller~~ according to one or more business criteria selected from the group consisting of seller criteria, product criteria, forecast criteria, supply criteria, customer order criteria, and policy criteria.

54. **(Currently Amended)** The system of Claim 51, wherein the processor further:

communicates product forecast models to a remote system;

receives from the remote system a promise computed at the remote system for a customer order requesting a quantity of one or more items through the at least one seller represented by a seller model ~~each seller~~, the promise computed according to at least the pre-allocated supply for corresponding products;

receives from the remote system adjusted product forecast models reflecting the promise; and

recomputes the amounts of the corresponding products that are ATP at the at least one seller represented by a seller model ~~each seller~~.

55. **(Previously Presented)** The system of Claim 51, wherein the product forecast model further represents a quantity of corresponding products each seller has committed to selling and the processor adjusts the pre-allocated supply of the product to each seller according to the committed quantity.

56. **(Currently Amended)** The system of Claim 51, wherein the processor further:

accepts a customer order requesting quantities of one or more items through the at least one seller represented by a seller model ~~each seller~~; and

computes a promise for the customer order according to the pre-allocated supply for corresponding products, wherein the promise comprises a plurality of options each with one or more of the restrictions specified for these products.

57.   **(Currently Amended)** The system of Claim 51, wherein:

each product forecast model is extensible such that one or more policy rules is associated with the corresponding product;

each policy rule comprises a restriction on either the forecasted sales or the pre-allocated supply of the product to <u>the at least one seller represented by a seller model</u> ~~each seller~~; and

either the forecasted sales or the pre-allocated supply of the product to <u>the at least one seller represented by a seller model</u> ~~each seller~~ are computed according to the policy rules.

58.   **(Currently Amended)** The system of Claim 51, wherein the processor further adjusts either the forecasted sales or the pre-allocated supply for one or more products for <u>the at least one seller represented by a seller model</u> ~~each seller~~ according to an arrival rate of customer orders for those products through <u>the at least one seller represented by a seller model</u> ~~each seller~~.

59. **(Currently Amended)** A method for managing data associated with available-to-promise (ATP) products, comprising:

accessing by a computer comprising a memory and a processor, a hierarchy of seller models stored in the memory, each seller model representing a seller of a product ~~one or more products within a hierarchy of sellers and within a seller organization, each product having a product forecast model representing~~, the seller being within a hierarchy of sellers, wherein

the hierarchy of sellers comprises at least one parent seller and at least two sub-sellers associated with the parent seller,

the parent seller is represented by a seller model of the hierarchy of seller models, and

the parent seller forecasts sales of the product, and

two or more of the at least two sub-sellers associated with the parent seller do not commit to sell an amount of the product included in the sales forecasted by the parent seller; and

~~forecasted sales of the product through each seller;~~

~~planned supply of the product;~~

~~customer orders for the product through each seller; and~~

~~pre-allocated supply of the product to each seller, the pre-allocated supply is a supply of the product pre-allocated to each seller to promise to subsequent customer orders for the product through each seller; and~~

computing by the processor, [[the]] an amount of the product that is ATP at [[a]] at least one seller represented by a seller model according to, at least, a [[the]] planned supply of the product, [[the]] one or more customer orders for the product through ~~each seller~~ one or more sellers represented by at least one of the seller models, a [[the]] pre-allocated supply of the product to ~~each seller~~ the at least one seller represented by a seller model, and an [[the]] amount of the product that is ATP at one or more other sellers within the hierarchy of sellers ~~within the seller organization,~~;

wherein the processor further adjusts adjusting, by the processor, the pre-allocated supply of the product to the at least one seller represented by a seller model each seller according to customer orders across a time horizon and recomputes the amount of the product that is ATP at the at least one seller represented by a seller model each seller according to the adjusted pre-allocated supply[[.]]; and

requiring, by the processor, a sub-seller of the two or more of the at least two sub-sellers to reserve at least a portion of the product calculated to be ATP at the parent seller prior to authorizing the portion of the product to be promised by the sub-seller.

60.   **(Currently Amended)** The method of Claim 59, further comprising adjusting the pre-allocated supply of the product to the at least one seller represented by a seller model each seller according to one or more business criteria selected from the group consisting of seller criteria, product criteria, forecast criteria, supply criteria, customer order criteria, and policy criteria.

61.   **(Currently Amended)** The method of Claim 59, further comprising:

communicating product forecast models to a remote system;

receiving a promise computed at the remote system for a customer order requesting a quantity of a product through <u>the at least one seller represented by a seller model</u> ~~each seller~~, the promise having been computed according to the pre-allocated supply of the product to <u>the at least one seller represented by a seller model</u> ~~each seller~~;

receiving from the remote system adjusted product forecast models reflecting the promise; and

recomputing the amount of the product that is ATP at <u>the at least one seller represented by a seller model</u> ~~each seller~~.

62.   **(Previously Presented)** The method of Claim 61:

wherein all product forecast models for one or more sellers are communicated to the remote system;

wherein the promise is computed according to the amount of the product that is ATP at the one or more other sellers in the hierarchy; and

further comprising adjusting the amount of the product that is ATP at the one or more other sellers in the hierarchy when the promise exceeds the pre-allocated supply of the product to each seller.

63.   **(Currently Amended)** The method of Claim 59:

wherein the product forecast model further represents a quantity of the product <u>the at least one seller represented by a seller model</u> ~~each seller~~ has committed to selling; and

further comprising adjusting the pre-allocated supply of the product to <u>the at least one seller represented by a seller model</u> ~~each seller~~ according to the committed quantity.

64.   **(Currently Amended)** The method of Claim 59, further comprising:

accepting a customer order requesting a quantity of a product through ~~the at least one seller represented by a seller model~~ each seller, and computing a promise for the customer order according to the planned supply and one or more existing customer orders, the promise restricted according to the pre-allocated supply of the product to ~~the at least one seller represented by a seller model~~ each seller.

65.   **(Currently Amended)** The method of Claim 59, wherein:

each product forecast model is extensible such that one or more policy rules is associated with the corresponding product;

each policy rule comprises a restriction on either the forecasted sales or the pre-allocated supply of the product to ~~the at least one seller represented by a seller model~~ each seller; and

either the forecasted sales or the pre-allocated supply of the product to ~~the at least one seller represented by a seller model~~ each seller is computed according to the policy rules.

66.   **(Currently Amended)** The method of Claim 59, further comprising adjusting either the forecast values or the pre-allocated supply of the product to ~~the at least one seller represented by a seller model~~ each seller according to an arrival rate of customer orders for the product through ~~the at least one seller represented by a seller model~~ each seller.

67. **(Currently Amended)** A method for managing data associated with available-to-promise (ATP) products, comprising:

accessing by a computer comprising a memory and a processor, a hierarchy of seller models stored in the memory, each seller model representing a seller of ~~a plurality of~~ products ~~within a hierarchy of sellers and within a seller organization,~~ each product of the plurality of products corresponding ~~that each correspond~~ to an item having one or more restrictions on its sale, at least two products of the plurality of products corresponding to the same item but with at least one different restriction ~~each product having a product forecast model representing~~ the seller being within a hierarchy of sellers, wherein:

the hierarchy of sellers comprises at least one parent seller and at least two sub-sellers associated with the parent seller,

the parent seller is represented by a seller model of the hierarchy of seller models, and

the parent seller forecasts sales of the product, and

two or more of the at least two sub-sellers associated with the parent seller do not commit to sell an amount of the product included in the sales forecasted by the parent seller; and

~~forecasted sales of the product through each seller;~~

~~planned supply of the product;~~

~~customer orders for the product through each seller; and~~

~~pre-allocated supply of the product to each seller, the pre-allocated supply is a supply of the product pre-allocated to each seller to promise to subsequent customer orders for the product through each seller; and~~

computing by the processor, [[the]] an amount of the product that is ATP at [[a]] at least one seller represented by a seller model according to, at least, a [[the]] planned supply of the product, [[the]] one or more customer orders for the product through ~~each seller~~ one or more sellers represented by at least one of the seller models, a [[the]] pre-allocated supply of the product to ~~each seller~~ the at least one seller represented by a seller model, and an [[the]] amount

of the product that is ATP at one or more other sellers within the hierarchy of sellers ~~within the seller organization,~~;

wherein ~~the processor further adjusts~~ adjusting, by the processor, the pre-allocated supply of the product to the at least one seller represented by a seller model ~~each seller~~ according to customer orders across a time horizon and recomputes the amount of the product that is ATP at the at least one seller represented by a seller model ~~each seller~~ according to the adjusted pre-allocated supply[[.]]; and

requiring, by the processor, a sub-seller of the two or more of the at least two sub-sellers to reserve at least a portion of the product calculated to be ATP at the parent seller prior to authorizing the portion of the product to be promised by the sub-seller.

68.   **(Previously Presented)** The method of Claim 67, wherein the restrictions are selected from the group consisting of price restrictions, quantity restrictions, and lead time restrictions.

69.   **(Currently Amended)** The method of Claim 67, further comprising adjusting the pre-allocated supply of the product to the at least one seller represented by a seller model ~~each seller~~ according to one or more business criteria selected from the group consisting of seller criteria, product criteria, forecast criteria, supply criteria, customer order criteria, and policy criteria.

70.   **(Currently Amended)** The method of Claim 67, further comprising:

communicating product forecast models to a remote system;

receiving a promise computed at the remote system for a customer order requesting a quantity of one or more items through the at least one seller represented by a seller model ~~each seller~~, the promise having been computed according to at least the pre-allocated supply for corresponding products;

receiving from the remote system adjusted product forecast models reflecting the promise; and

recomputing the amounts of the corresponding products that are ATP at the at least one seller represented by a seller model ~~each seller~~.

71.   **(Currently Amended)** The method of Claim 67, wherein:

the product forecast model further represents a quantity of corresponding products the at least one seller represented by a seller model ~~each seller~~ has committed to selling; and

further comprising adjusting the pre-allocated supply of the product to the at least one seller represented by a seller model ~~each seller~~ according to the committed quantity.

72.   (**Currently Amended**) The method of Claim 67, further comprising:

accepting a customer order requesting quantities of one or more items through ~~the at least~~ ~~one seller represented by a seller model~~ each seller, and computing a promise for the customer order according to the pre-allocated supply for corresponding products, wherein the promise comprises a plurality of options each with one or more of the restrictions specified for these products.

73.   (**Currently Amended**) The method of Claim 67, wherein:

each product forecast model is extensible such that one or more policy rules is associated with the corresponding product;

each policy rule comprises a restriction on either the forecasted sales or the pre-allocated supply of the product to ~~the at least one seller represented by a seller model~~ each seller; and

either the forecasted sales or the pre-allocated supply of the product to ~~the at least one~~ ~~seller represented by a seller model~~ each seller is computed according to the policy rules.

74.   (**Currently Amended**) The method of Claim 67, further comprising adjusting either the forecasted sales or the pre-allocated supply for one or more products for ~~the at least~~ ~~one seller represented by a seller model~~ each seller according to an arrival rate of customer orders for those products through ~~the at least one seller represented by a seller model~~ each seller.